



TR-3S DUO

OEM GNSS Heading Board



Key Features

- 874 Channels, All GNSS Constellations
- GNSS Heading
- Spoofing & Jamming Detection
- Advanced Multipath Mitigation
- Fast Acquisition Channels
- Up to 100 Hz Output
- CAN, IRIG, Event Marker, 1PPS
- 16 GB Storage

The TR-3S DUO is a small OEM GNSS board with dual antenna inputs for GNSS Heading. The footprint is suitable for any application requiring precise positioning and heading within a compact size.

Patented anti-spoofing and jamming detection increases resilience, together with a full suite of interfaces for multiple applications.

JAVAD NetView software provides an easy status and configuration tool, and users may also interface directly by line commands.

TR-3S DUO Specifications



Number of Channels	874		
GNSS Constellations	GPS	L1 C/A, L1C (P+D), TMBOC, P1, P2, L2C (L+M), L5 (I+Q)	
	GLONASS	L1 C/A, P1, P2, L2C, L3 (I+Q)	
	Galileo	E1 (B+C), CBOC, E5A (I+Q), E5B (I+Q), AltBoc, E6 (B+C)	
	BeiDou	B1, B1C (P+D), TMBOC, B2B(I+Q) B2, B2A(I+Q), AltBoc, B3	
	QZSS	L1C C/A, L1C (P+D), TMBOC, L2C (L+M), L5 (I+Q), L6 (L61, L62), L1S, L1Sb, L5S	
	SBAS	L1, L5 (P+D)	
	NavIC	L1, L5, S-Band	
	L-Band	1525-1560 Mhz	
GNSS Accuracy (RMS)		Horizontal (m)	Vertical (m)
	Autonomous (Stand alone)	1.000	1.500
	SBAS	0.500	0.850
	DGPS	0.250	0.500
	JStar (PPP)	0.025	0.050
	RTK	0.008 + 1 ppm	0.015 + 1 ppm
	Network RTK	0.008 + 0.5 ppm	0.015 + 0.5 ppm
	Static / Fast Static	0.003 + 0.1 ppm	0.004 + 0.4 ppm
	Heading	< 0.09 deg (2m baseline)	
Output Rate	Position / Heading	up to 100 Hz, Heading up to 50 Hz	
	Measurements	up to 100 Hz	
Memory	Non-removable	Up to 64 GB	
Status/Interface	LEDs / Keys	Power ON/OFF, External Command inputs (Function) 4 x External LED Drivers	
Connectors	I/O	40-pin Micro Header, 2 x 20 pos, 0.050" pitch	
	GNSS Antenna	2 x MMCX, +5 VDC Ports (0.16A max)	
Communication	USB	1 x USB 2.0 Full Speed. Up to 1.5 Mbps RS232 speed	
	Serial	1 x RS232 up to 460.8 kbps 2 x RS232/RS422 up to 460.8 kbps	
	CAN	1 x CAN 2.0	
	Time	1 x IRIG	
	1PPS	1 x 1PPS	
	Event Marker	1 x Event Marker	
Power	External Input	Power Consumption	
	Input Voltage	+4.5 to +40 VDC	
	Power Consumption	2.2 W typical	
Physical & Environmental	Operating Temperature	-40°C to +80° C	
	Storage Temperature	-40°C to +85°C	
	Shock	MIL-STD-810G (Method 516.7) ISO-9022-31-06 Shock, Severity 5	
	Vibration	MIL-STD-810G (Method 514.7) IEC 60068-2-6 Sine Vibration	
	Dimensions	66 x 57 x 11 mm	
	Weight	0.031 kg	

* Dual-antenna GNSS measurements are dependent on GNSS RTK performance.

GNSS performance is dependent on signal quality, satellite geometry, ionospheric and tropospheric conditions, baseline length, multipath effects and RF interference. Specifications may be changed without notice.